

ACCESSION NUMBER: 88:8809 CA

ENTRY DATE: Entered STN: 12 May 1984

TITLE: Fluorescent whitening of paper

INVENTOR(S): Fearnley, Charles; Davenport, Leonard Thomas; Mitcham, George Edward; Kay, Brunhilde

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Ger. Offen., 27 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

INT. PATENT CLASSIF.: D21H003-80

CLASSIFICATION: 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2715864	A1	19771027	DE 1977-2715864	19770409 <-
FR 2348317	A1	19771110	FR 1977-11136	19770413
PRIORITY APPLN. INFO.:			GB 1976-15196	A 19760414

PATENT CLASSIFICATION CODES:

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 2715864	IC	D21H003-80
	IPCI	D21H0003-80
	IPC	D21H0021-14 [I,C]; D21H0021-30 [I,A] <-
FR 2348317	IPCI	D21H0003-80; D06L0003-12

ABSTRACT:

The addn. of 4,4'-bis(s-triazin-2-ylamino)stilbene-2,2'-disulfonate derivs. contg. dispersants to pulp slurry gave paper with high whiteness. Thus, 125 parts aq. pulp slurry (dry pulp content 25 parts) was dild. with 1500 parts H₂O, treated with 10% Al₂(SO₄)₃ soln. 5, 5% resin soln. 5, and disodium 4,4'-bis[[6-anilino-4-[bis(2-hydroxyethyl)amino]-s-triazin-2-yl]amino]stilbene-2,2'-disulfonate [4193-55-9] contg. tetrasodium 4,4'-bis[[6-(4-sulfoanilino)-4-[bis(2-hydroxyethyl)amino]-s-triazin-2-yl]amino]stilbene-2,2'-disulfonate [16470-24-9] and surfactant 0.1 part, formed into web, pressed, and dried to give paper with high whiteness degree.

SUPPL. TERM: triazine deriv whitener paper; fluorescent brightener paper; stilbenedisulfonic acid whitener paper

INDEX TERM: Paper
(fluorescent brightness for, triazine stilbenedisulfonate derivs. as)

INDEX TERM: Fluorescent brighteners
(triazine stilbenedisulfonate derivs., for paper)

INDEX TERM: 3426-43-5 4193-55-9 16470-24-9 41098-56-0 42355-78-2

ROLE: USES (Uses)
(fluorescent brighteners, for paper)

ANSWER 1 OF 1 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 1977-77827Y [44] WPIDS

TITLE: Optically brightening paper - with slurry contg.
(4,4')-bis-s-triazinyl-amino-stilbene-(2,2')-di-sulphonic
acid deriv..

DERWENT CLASS: E23 F09

PATENT ASSIGNEE(S): (CIBA) CIBA GEIGY AG

COUNTRY COUNT: 3

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
DE 2715864	A 19771027 (197744)*				<--
FR 2348317	A 19771216 (197806)				
ZA 7704664	A 19790202 (197918)				

PRIORITY APPLN. INFO: GB 1976-15196 19760414

INT. PATENT CLASSIF.: C07C000-00; D06L003-12; D21H003-80

BASIC ABSTRACT:

DE 2715864 A UPAB: 19930901

Paper is optically brightened with a slurry contg. as an act active ingredient 15-50 wt. % of 4,4'-bis-s-triazinylaminostilbene-2,2'-disulphonic acid deriv. (I) (where M is H, an alkali metal or amine; X and Y are independently mono- or di-substd. amino, alkoxy or morpholino gp.; Y is also Cl; only one M is H). The slurry has a viscosity of 1000-11000 (2000-600) cP when stirred at 6 rpm, and 150-2000 (500-1500) cP at 60 rpm at 25 degrees C.

Pref. the slurry contains 0.1-5 (pref. 0.5-2) wt. % dispersing agent (anionic, cationic or non-ionic surfactant); 0.1-2 (0.1-1) wt. % gelling agent (e.g. a carboxyvinyl polymer, magnesium montmorillonite, etc.); and 0.5-15 wt. % of electrolyte (on organic or inorganic salt of ammonium, Na, K, Ca, Ba, Sr, Mg or Zn). Suitable other additives include urea, sugar and dextrin.

The slurry of pH 4.3-9.0 can be added to the paper pulp, applied on a sizing press, or brushed as a pigment preparation, used as 0.01-2 wt. % w.r.t. paper. The application as aq. slurry is technically more convenient than as an organic soln. or powder.

FILE SEGMENT: CPI

FIELD AVAILABILITY: AB

MANUAL CODES: CPI: E24-A01; F05-A06D